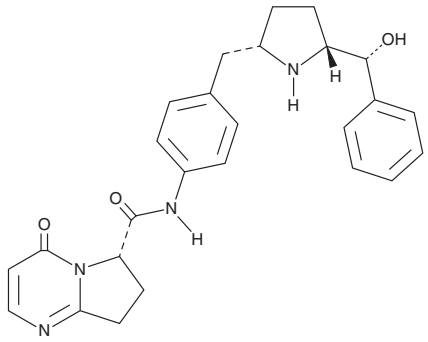
PRODUCT INFORMATION

Vibegron

Item No. 33386

CAS Registry No.:	1190389-15-1
Formal Name:	4,6,7,8-tetrahydro-N-[4-[[(2S,5R)-5-[(R)-hydroxyphenylmethyl]-2-pyrrolidinyl] methyl]phenyl]-4 oxo-pyrrolo[1,2-a] pyrimidine-6-carboxamide
Synonym:	MK-4618
MF:	$C_{26}H_{28}N_4O_3$
FW:	444.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Vibegron is supplied as a solid. A stock solution may be made by dissolving the vibegron in the solvent of choice, which should be purged with an inert gas. Vibegron is slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in DMSO.

Description

Vibegron is an agonist of the β_3-adrenergic receptor (β_3-AR).[1] It selectively induces cAMP accumulation in cells expressing β_3-ARs (EC_{50} = 2 nM) over β_1- or β_2-ARs for which it has no activity at 10 µM. Vibegron (3 mg/kg, i.v.) increases the micturition interval and decreases the micturition pressure in a female rat model of Parkinson's disease with lower urinary tract (LUT) dysfunction.[2] It reduces non-voiding contractions during bladder filling in mice with spinal cord injury.[3] Formulations containing vibegron have been used in the treatment of overactive bladder.

References

1. Brucker, B.M., King, J., Mudd, P.N., Jr., *et al.* Selectivity and maximum response of vibegron and mirabegron for β_3-adrenergic receptors. *Curr. Ther. Res. Clin. Exp.* **96**, 100674 (2022).
2. Togo, M., Kitta, T., Chiba, H., *et al.* Effects of a new selective β_3-adrenoceptor agonist, vibegron, on bladder and urethral function in a rat model of Parkinson's disease. *Low. Urin. Tract Symptoms* **15(6)**, 265-270 (2023).
3. Shimizu, N., Gotoh, D., Nishimoto, M., *et al.* Efficacy of vibegron, a novel β3-adrenoreceptor agonist, for lower urinary tract dysfunction in mice with spinal cord injury. *Int. J. Urol.* **28(10)**, 1068-1072 (2021).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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